

## CHAPTER

# 10

# Consumer Mathematics: Financial Management

### You will learn

- ▶ Financial Planning and Management

Financial planning and management need to be practised by each individual. Financial decisions need to be planned like a game of chess. Every financial decision must be considered carefully before taking the next steps. Prudent financial management can help us stay debt-free.

To what extent can a monthly budget help us achieve our financial goals?

### Why Study This Chapter?

Effective financial planning is needed in our daily life. Financial management can be applied in accounting, stock exchange, business and others.



## WORD BANK

- cash flow
- asset
- debt freedom
- long term
- short term
- financial goal
- income
- investment
- expense
- *aliran tunai*
- *aset*
- *bebas hutang*
- *jangka panjang*
- *jangka pendek*
- *matlamat kewangan*
- *pendapatan*
- *pelaburan*
- *perbelanjaan*

### Walking Through Time



**Tan Sri Dr Zeti Akhtar Aziz**

According to the former governor of Bank Negara Malaysia, Tan Sri Dr Zeti Akhtar Aziz, financial education must start at a young age. Financial literacy must be cultivated at a young age. Bank Negara Malaysia has introduced *Buku Wang* to school children since 1999.



<http://bt.sasbadi.com/m4271>

## 10.1 Financial Planning and Management

### What does financial management process mean?

Financial management is a process that involves managing money from sources of income into savings, expenses, protection and investment. There are five steps in financial management process.



### Learning Standard

Describe effective financial management process.

### Setting goals

Setting goals is the first step in the financial management process. The financial goals set must be prioritised and specific. For example, an individual would like to have RM15 000 of savings in the bank three years before marriage.

#### (a) Short-term financial goals

Short-term financial goals can be achieved in less than a year. Short-term financial goals do not involve a large amount of money, for example, purchasing a laptop, furniture, a cell phone and others.

#### (b) Long-term financial goals

Long-term financial goals usually take more than five years to achieve. Long-term financial goals involve a large amount of money, for example, an individual needs to have savings for retirement, children's education, medical expenses and others.



### TIPS

Being disciplined and consistent in following the financial plan will help us achieve our financial goals.



### INFO ZONE

Total Daily Expenses	
Breakfast	RM5
Lunch	
Photostat	
Bus fare	
Others	

A habit of tracking our daily expenses can help us control our finances (money given by parents).

The duration needed to achieve a financial goal depends on the percentage of the monthly savings from the person's income. However, this depends on the financial planning of the person.

The most important step is to set financial goals. We should prioritise to meet our needs rather than wants. For example, the basic needs such as food, accommodation and clothing should be given priority.

Having the desire to live a luxurious life is a want. Spending money on our wants will lead us to spend more than we earn. Effective financial planning will help us to avoid financial problems as well as to have an adequate savings in the event of an emergency.

## SMART financial goals

Setting clear financial goals is the most important aspect in financial planning. Financial goals set based on the SMART concept will help us control our spending in order to achieve the desired financial goals.

The five key components in this strategy are:



### Example 1

Encik Yusuf will be celebrating Family Day in Port Dickson in 6 months. This celebration will cost him RM1 500. Encik Yusuf needs to save RM250 a month from his income of RM2 500 in order to achieve his financial goal. Is Encik Yusuf's financial goal a SMART approach?



### Solution:

#### Specific

Encik Yusuf's goal is to celebrate Family Day in Port Dickson. In this case, Encik Yusuf's goal is specific because he aims to go on vacation at a specific location.

#### Measurable

Encik Yusuf's specific goal can be calculated as he knows the amount of money needed to celebrate Family Day. In this case, Encik Yusuf's goal can be measured because he knows how much money is needed to celebrate Family Day.

### Attainable

Encik Yusuf's financial goal is attainable because it can be achieved by saving RM250 a month from his monthly income of RM2 500.

### Realistic

Encik Yusuf's financial goal of celebrating Family Day in Port Dickson in 6 months is realistic. He will save RM250 a month to achieve the goal.

### Time-bound

Encik Yusuf's financial goal is time-bound because it has a time limit of six months.

Therefore, Encik Yusuf applied the SMART concept in his goal setting.

## ●●Evaluating financial status

Assets and liabilities are the benchmarks for evaluating our financial status. Examples of assets are cash, savings, real estate investments, fixed deposits, unit trusts or company shares.

Liabilities are bank loans, credit card debts and other financial obligations. Besides that, we should know the outstanding payments such as unsettled rent, utility bills, credit card bills and others.

Evaluating our financial status helps us measure our performance in the effort of achieving our short-term and long-term financial goals.



As a general guide, save money for basic needs at least for six months.

## ●●Creating financial plan

Life management based on financial planning helps us monitor our cash flow. There are two important components in constructing a financial plan, namely the sources of income and expenses.

Income consists of **active income** and **passive income**. Active income is the main income such as salaries, allowances, commissions and other financial resources. Passive income consists of rent received, interest received, dividends and other investments. Both of these incomes are cash inflows.

Expenses consist of **fixed expenses** and **variable expenses**. Fixed expenses are expenses that must be paid or spent such as rent, insurance payments, housing loan instalments, car instalments and credit card payments.

Variable expenses will change every month according to our spending behaviour. For example, petrol expenses, groceries, electricity bill payments and water bill payments. Both of these expenses are cash outflows.

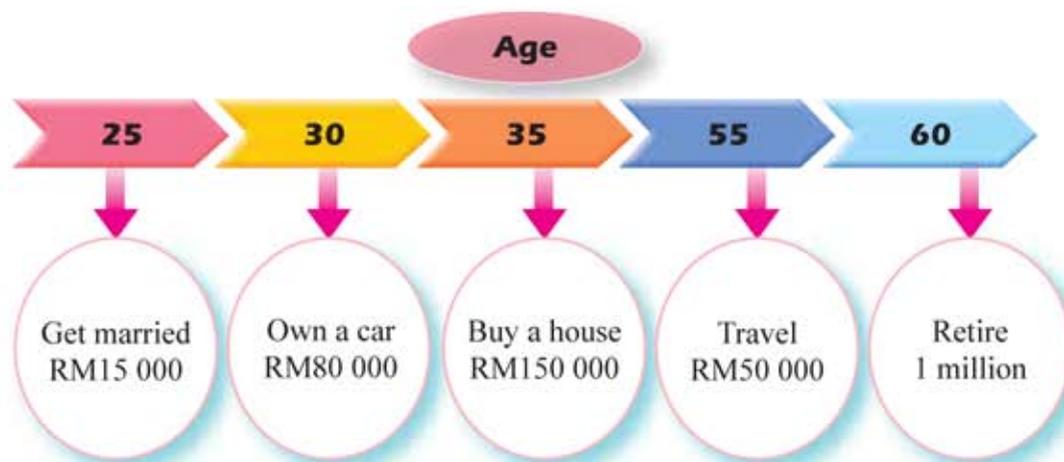
A positive cash flow will exist if the total income exceeds the total expenses.

A negative cash flow will exist if the total income is less than the total expenses.

These are the steps to consider before creating a financial plan.



Example of an individual's financial goal:



Effective financial management helps us develop strategies to manage our spending behaviour to accumulate monthly savings.

Goals	Starting Year	Target Year	Duration (years)	Total (RM)	Monthly Savings Commitment (RM)
Get married	2019	2022	3	15 000	
Own a car	2023	2027	4	20 000 (down payment)	

**Example 2**

Mr Derrick receives an active income of RM3 000 and a passive income of RM1 000 in a month. Mr Derrick also has fixed expenses of RM1 350 and variable expenses of RM650 in a month.

- (a) Calculate Mr Derrick's monthly cash flow. Explain your answer.  
 (b) Explain Mr Derrick's cash flow if Mr Derrick does not have any passive income and the total expenses increase by 60%.

**Solution:**

$$\begin{aligned} \text{(a) Cash flow} &= \text{Total income} - \text{Total expenses} \\ &= \text{RM3 000} + \text{RM1 000} - \text{RM1 350} - \text{RM650} \\ &= \text{RM2 000 (Positive cash flow)} \end{aligned}$$

A positive cash flow of RM2 000 is good because Mr Derrick has a surplus of income after deducting the expenses. This will allow him to invest or deal with emergency situations.

$$\begin{aligned} \text{(b) Total expenses} &= 160\% \times \text{RM2 000} \\ &= \text{RM3 200} \end{aligned}$$

$$\begin{aligned} \text{Cash flow} &= \text{Total income} - \text{Total expenses} \\ &= \text{RM3 000} - \text{RM3 200} \\ &= -\text{RM200 (Negative cash flow)} \end{aligned}$$

A negative cash flow will burden Mr Derrick and may cause him to use the credit card facilities to solve financial problems.

**Example 3**

Cik Janani works as a private school teacher. She earns an income of RM3 500. She also gives tuition classes and earns an income of RM1 000. Cik Janani also rents out her house for RM850 a month. She has fixed expenses of RM1 200 and variable expenses of RM600 in a month.

Calculate Cik Janani's monthly cash flow. Explain your answer.

**Solution:**

$$\begin{aligned} \text{Cash flow} &= \text{RM3 500} + \text{RM1 000} + \text{RM850} - \text{RM1 200} - \text{RM600} \\ &= \text{RM3 550 (Positive cash flow)} \end{aligned}$$

A positive cash flow of RM3 550 is good because Cik Janani can save money in the bank and benefit from the interest. This interest is a passive income for Cik Janani.

## ●● Carrying out financial plan

Carrying out a financial plan turns the financial planning into action that can be implemented.

When carrying out a financial plan, we must follow the plan at an early stage. We must be ready to change and compare the planned monthly expenses and actual expenses. This gives us an opportunity to identify any wastage and hence reduce the actual expenses in order to meet the monthly expenses as planned.

For example, Encik Yasir's planned monthly expenses and actual expenses for the first month are shown as follows.

Expenses	Planned monthly expenses (RM)	Actual expenses (RM)
Electricity bill	150	200
Food	600	850

Does Encik Yasir spend money as he planned?



Encik Yasir's expenses show an increase in the electricity bill and food compared to the planned expenses. Therefore, Encik Yasir should reduce the electricity consumption by RM50. He also needs to reduce the total expenses on food by RM250.

When carrying out a financial plan, we have to prioritise payments for fixed expenses, for example, housing loan instalments, credit card payments and car instalments. Late instalment payment will lead to additional interest charges and late payment penalty.

In addition, when carrying out a financial plan, we must ensure that the monthly cash flow is always positive, where the income exceeds the expenses. There is a negative monthly cash flow (deficit) when expenses are more than income. If there is a negative monthly cash flow, prompt action should be taken to change the spending behaviour. If this problem is not resolved, then we will fail in achieving our financial goals within the specific time frame.

### INFO ZONE

Malaysians go bankrupt due to the failure in paying vehicle instalments, housing loans and credit card debts.

**Example 4**

Puan Aminah plans to buy a car worth RM50 000 within a year. She plans to pay a down payment of RM7 500 with her savings. Puan Aminah does not have any savings. She wants to get a car loan from a bank.

Bank X offers several options. After evaluating her financial status, Puan Aminah chooses to pay the monthly instalment for seven years as that is what she can only afford.

**Puan Aminah's Family Financial Plan**

Income and Expenditure	RM	
<b>Net income</b>		
Husband	3 500	
Wife ( <i>Net salary</i> )	3 000	
Passive income	0	
<b>Total monthly income</b>	<b>6 500</b>	
Minus fixed monthly savings ( <i>10% of monthly income</i> )	650	←
Minus savings for emergency fund	100	
<b>Income balance</b>		<b>5 750</b>
<b>Minus monthly fixed expenses</b>		
Housing loan	1 500	
Husband's car instalment	600	
Insurance premiums	400	
<b>Total monthly fixed expenses</b>		<b>2 500</b>
<b>Minus monthly variable expenses</b>		
Nursery	400	
Children's needs	450	
Home utilities	400	
Petrol expenses	380	
Toll payments	100	
Groceries	1 000	
Allowances for parents	400	
<b>Total monthly variable expenses</b>		<b>3 130</b>
<b>Surplus of income</b>		<b>120</b>

Income balance – Total monthly fixed expenses  
– Total monthly variable expenses

10% of income should keep  
as savings before spending.

## Puan Aminah's Family Financial Plan and Actual Cash Flow

Income and Expenditure	Financial Plan (RM)	Actual Cash Flow (RM)
<b>Net income</b>		
Husband	3 500	3 500
Wife (Net salary)	3 000	3 000
Passive income	0	0
<b>Total monthly income</b>	<b>6 500</b>	<b>6 500</b>
<b>Minus fixed monthly savings</b> (10% of monthly income)	<b>650</b>	<b>650</b>
Minus savings for emergency fund	100	100
<b>Income balance</b>	<b>5 750</b>	<b>5 750</b>
<b>Minus monthly fixed expenses</b>		
Housing loan	1 500	1 500
Husband's car instalment	600	600
Insurance premiums	400	400
<b>Total monthly fixed expenses</b>	<b>2 500</b>	<b>2 500</b>
<b>Minus monthly variable expenses</b>		
Nursery	400	400
Children's needs	450	450
Home utilities	400	400
Petrol expenses	380	380
Toll payments	100	100
Groceries	1 000	900
Allowances for parents	400	400
<b>Total monthly variable expenses</b>	<b>3 130</b>	<b>3 030</b>
<b>Surplus of income</b>	<b>120</b>	<b>220</b>

Based on Puan Aminah's financial plan, the expenses for groceries can be reduced by RM100. Being careful with money has reduced her spending on groceries.

Positive cash flow is an additional savings.

- Based on Puan Aminah's family financial planning, can she achieve her financial goal?
- Is Puan Aminah's financial management wise? Justify your answer.
- Does Puan Aminah use the SMART approach to achieve her financial goals? Justify your answer.

**INTERACTIVE ZONE**


What should Puan Aminah do if the cash flow is negative? Discuss.

**Solution:**

- (a) Puan Aminah can achieve her short-term financial goal of buying a car with a down payment of RM7 500.

$$\begin{aligned}\text{Total of monthly savings} &= \text{RM}650 \times 12 \text{ (months)} \\ &= \text{RM}7\,800\end{aligned}$$

She still has a surplus of RM300 from her needs of RM7 500. She also has an excess of RM220 per month in case of emergency or unexpected expenses.

- (b) It is a wise financial management because Puan Aminah is spending on basic needs. She also has monthly savings, prioritises protection by buying insurance and she does not have any debts like credit card debt.
- (c) Puan Aminah uses the SMART approach to achieve her financial goals, which are:
- Specific – Buy a car worth RM50 000
  - Measurable – Pay a down payment of RM7 500
  - Attainable – Save RM7 500 for the down payment (Within a year)
  - Realistic – Monthly savings of RM650 is only 10% of the total income of RM6 500
  - Time-bound – Within 1 year

### ●● Reviewing and revising the progress

Reviewing and revising the progress of a financial plan from time to time is important to make sure the cash flow is always positive. This indirectly helps us to achieve our financial goals as planned. We should also be prepared to change our financial goals if they are not realistic for our monthly income.

#### Example 5

Puan Aminah's husband is promoted at the end of June in the same year with a 10% salary increase. The amount of their other expenses is fixed. What is the effect of Puan Aminah's husband's salary increment on her financial goals? You can refer to Example 4.

**Solution:**

$$\begin{aligned}\text{Puan Aminah's husband's salary increment} &= \frac{10}{100} \times \text{RM}3\,500 \\ &= \text{RM}350\end{aligned}$$

$$\begin{aligned}\text{Puan Aminah's husband's new salary} &= \text{RM}3\,500 + \text{RM}350 \\ &= \text{RM}3\,850\end{aligned}$$

When the salary of Puan Aminah's husband is increased by 10%, the savings in the bank can be increased. This can help them in purchasing the car in less than one year as planned, since other expenses are fixed.

### TIPS

Financial plans need to be reviewed from time to time. If you do not manage your financial strategy according to the current situation, then it is difficult to achieve the financial goals as planned.

### Self Practice 10.1a

1. What is the meaning of financial management?
2. Explain the financial management process.
3. What is the importance of setting financial goals?
4. Differentiate between short-term and long-term financial goals.
5. Among the following individuals, who sets the SMART goals? Justify your answer.

Puan Salmah intends to buy a laptop which costs RM3 000 as a birthday gift for her son. Therefore, she plans to save RM300 a month for ten months.



Miss Tamarai is a teacher with an income of RM3 000 and plans to get married in two years' time. The wedding expenses are estimated to be RM30 000. Therefore, she wants to save RM1 000 a month for a period of two years. Besides that, she also plans to get a loan for the wedding expenses.



Mr Brian Lee wants to buy a house worth RM200 000 if he has sufficient amount of money.



## How do you evaluate the feasibility of the short-term and long-term financial plans?

A financial plan is developed to achieve our short-term and long-term financial goals. We have to identify our sources of income and expenses.

An effective financial plan should set aside 10% savings of the total income prior to engaging any fixed expenses and variable expenses. In addition, the financial plan should prioritise the fixed expenses payments such as monthly instalments of cars, houses and credit card bills.

If there is a negative cash flow, we should adjust the financial plan by reducing the variable expenses. At the same time, we can add a source of income with our skills to keep the fixed expenses unaffected.

The information below shows Encik Yusuf's income and expenses for December 2019. Encik Yusuf works as an insurance agent while his wife is a housewife. They have three children who are still studying.



### Learning Standard

Construct and present personal financial plans to achieve short-term and long-term financial goals, and hence evaluate the feasibility of the financial plans.

**Encik Yusuf's Financial Plan**

Income and Expenditure	Financial Plan (RM)	
<b>Net income</b>		
Husband ( <i>Net salary</i> )	5 000	
Passive income	0	
<b>Total monthly income</b>	5 000	
Minus fixed monthly savings ( <i>10% of monthly income</i> )	0	
Minus savings for emergency fund	200	
<b>Income balance</b>		4 800
<b>Minus monthly fixed expenses</b>		
Housing loan instalment	1 000	
Insurance premiums	500	
<b>Total monthly fixed expenses</b>		1 500
<b>Minus monthly variable expenses</b>		
Food and drinks	900	
Children's education	600	
Petrol expenses	420	
Telephone bill	480	
Utility bills	500	
Travel	400	
<b>Total monthly variable expenses</b>		3 300
<b>Surplus of income / Deficit</b>		0

Encik Yusuf wants to buy a Fast brand computer which costs RM6 000 to improve his insurance sales within a year.

Can Encik Yusuf achieve his goal?



**Solution:**

$$\begin{aligned}\text{Cash flow} &= \text{Income balance} - \text{Total expenses} \\ &= \text{RM4 800} - \text{RM1 500} - \text{RM3 300} \\ &= \text{RM0}\end{aligned}$$

Based on the financial plan, Encik Yusuf does not have any savings. So, it is difficult for him to achieve his short-term financial goal. Help Encik Yusuf to solve his financial problem without using the emergency fund.

- Does Encik Yusuf manage his financial effectively?
- How much monthly savings does Encik Yusuf need to save in order to achieve his goals?
- How can an additional income be generated to increase the total income?
- Create a new financial plan based on the SMART concept.

**Solution:**

(a) He does not manage his financial effectively because there are expenses that can be reduced such as the spending on telephone, food and drinks. Furthermore, he does not have any investment plan for his future.

$$\begin{aligned}\text{(b) Monthly savings needed} &= \frac{\text{RM6 000}}{12} \\ &= \text{RM500}\end{aligned}$$

- Encik Yusuf can increase his income by selling more insurance products and recruiting more new agents.
- The SMART concept in the new financial plan.

Specific – Buy a computer that costs RM6 000.

Measurable – Save RM500 every month to achieve the goals.

Attainable – Can save RM500 from the income of RM5 000.

Realistic – RM500 is only 10% of the total income of RM5 000.

Time-bound – One year is enough to save RM6 000 with monthly savings of RM500.

Encik Yusuf's new financial plan after considering some measures in terms of variable expenses.

### Encik Yusuf's New Financial Plan

Income and Expenditure	Financial Plan (RM)	
<b>Net income</b>		
Husband ( <i>Net salary</i> )	5 000	
Passive income	0	
Total monthly income	5 000	
Minus fixed monthly savings ( <i>10% of monthly income</i> )	500	
Minus savings for emergency fund	200	
Income balance		4 300
<b>Minus monthly fixed expenses</b>		
Housing loan instalment	1 000	
Insurance premiums	500	
Total monthly fixed expenses		1 500
<b>Minus monthly variable expenses</b>		
Food and drinks	900	
Children's education	600	
Petrol expenses	300	
Telephone bill	300	
Utility bills	350	
Travel	200	
<b>Investments</b>		
Unit trusts investments	150	
Total monthly variable expenses		2 800
Surplus of income	0	0

These expenses can be reduced if he spends money carefully.

Encik Yusuf's savings of RM500 a month can help him save RM6 000 by end of the year 2020 to achieve his short-term goal.

### Evaluate the feasibility of Encik Yusuf's financial plan

Each financial plan should be evaluated from time to time based on several factors. One of the factors that Encik Yusuf should focus on is the current inflation rates that can lead to an increase in the cost of living. This can indirectly increase the total expenses. If this happens, Encik Yusuf should take action to increase his income. However, Encik Yusuf's financial plan can be achieved as he has invested in unit trusts. The additional expenses can be covered by the dividends received.

## Long-term financial goals

Long-term financial goals are as important as short-term financial goals. The purpose of the long-term financial plan is to make sure the goals can be achieved as planned in the initial stage. Long-term financial plans usually exceed five years such as children's education, retirement and buying a house. To develop a long-term financial plan, the key aspects to be considered are as follows:

- Inflation rate
- Interest rate
- Personal health

In developing a long-term financial plan, it would be better to start saving early because this practice can help us in achieving our financial goals faster. For example, we should prepare for retirement, buy a property and save for children's education.

Long-term financial plans developed vary for each individual. The income of an individual or joint income of husband and wife allows an individual to have sufficient monthly savings in a shorter period of time.

### INFO ZONE

Inflation – Situation of a continuing increase in the general price level.

### INTERACTIVE ZONE

Discuss other aspects that need to be considered in developing a long-term financial plan.

### Example 6

Encik Syed and his wife intend to buy a house in six years after getting married. Their total income is RM8 000 and their total fixed and variable expenses is RM6 500. They plan to buy a double-storey house priced at RM720 000 with a down payment of RM72 000.

- (a) How much is the monthly savings that Encik Syed and his wife must save in order to achieve their financial goal?
- (b) Is it wise for Encik Syed to buy a house priced at RM720 000 with his current financial planning? Justify your answer.

#### *Solution:*

$$\begin{aligned} \text{(a) Annual savings needed by Encik Syed} &= \frac{\text{RM72 000}}{6 \text{ years}} \\ &= \text{RM12 000} \end{aligned}$$

$$\begin{aligned} \text{Monthly savings needed by Encik Syed} &= \frac{\text{RM12 000}}{12 \text{ months}} \\ &= \text{RM1 000} \end{aligned}$$

For Encik Syed's family, saving RM1 000 every month to achieve their long-term goal is not difficult with the total income of RM8 000.

- (b) No. Although Encik Syed is able to pay the down payment of RM72 000, his monthly housing loan instalments can burden him due to high expenses.

### Case Study

Assume you are a financial consultant. Mr Wong as the head of his family has come to see you with the information of his monthly income and expenses as shown below. He seeks your consultancy to create a financial plan to buy a house.

#### Mr Wong's Financial Plan

Income and Expenditure	Financial Plan (RM)	
<b>Net income</b>		
Net salary	6 500	
Passive income (monthly rental)	500	
Total monthly income	7 000	
Minus fixed monthly savings (10% of monthly income)	650	
Minus savings for emergency fund	100	
Income balance		6 250
<b>Minus monthly fixed expenses</b>		
Housing loan instalment	1 500	
Car loan instalment	800	
Insurance premiums	600	
Total monthly fixed expenses		2 900
<b>Minus monthly variable expenses</b>		
Groceries	1 300	
Travel	500	
Home utilities	350	
Telephone bill	300	
Petrol expenses	800	
Gym	100	
Total monthly variable expenses		3 350
Surplus of income	0	0

Mr Wong works as a marketing officer in a company while his wife is a housewife. They have two children who are one and two years old. Mr Wong would like to save an amount of RM150 000 for his children's education in 15 years from now. Help Mr Wong to create a financial plan to achieve his financial goals.



**Solution:**

$$\text{Annual savings} = \frac{\text{RM}150\,000}{15 \text{ years}}$$

$$= \text{RM}10\,000$$

$$\text{Monthly savings} = \frac{\text{RM}10\,000}{12 \text{ months}}$$

$$= \text{RM}833.33$$

$$\begin{aligned} \text{Additional savings needed} &= \text{RM}833.33 - \text{RM}650 \\ &= \text{RM}183.33 \end{aligned}$$

How can Mr Wong achieve his long-term financial goal?

**Suggestion:**

Mr Wong needs to increase his monthly savings by RM183.33.

1. He can reduce the amount allocated for travelling by 25% in order to achieve his financial goal of saving money for his children's education.

$$\begin{aligned} \text{Reduced travel expenses} &= \frac{25}{100} \times \text{RM}500 \\ &= \text{RM}125 \end{aligned}$$

$$\begin{aligned} \text{New travel expenses} &= \text{RM}500 - \text{RM}125 \\ &= \text{RM}375 \end{aligned}$$

2. He can also cut down expenses on petrol by RM100 by car-pooling with his colleagues. By practising the above two suggestions,

$$\begin{aligned} \text{additional savings} &= \text{RM}125 + \text{RM}100 \\ &= \text{RM}225 \end{aligned}$$

3. Mr Wong can also consider reducing the variable expenses to achieve his financial goals. Mr Wong can do some part-time jobs to generate additional income. Besides that, he can invest the amount of money saved each year to earn passive income, such as dividends, bonus shares and interest as an addition to the total income.

The new financial plan after taking into account the suggestions:

### Mr Wong's New Financial Plan

Income and Expenditure	Financial Plan (RM)	
<b>Net income</b>		
Net salary	6 500	
Passive income (monthly rental)	500	
<b>Total monthly income</b>	<b>7 000</b>	
Minus fixed monthly savings (10% of monthly income)	650	
Minus savings for emergency fund	100	
<b>Income balance</b>		<b>6 250</b>
<b>Minus monthly fixed expenses</b>		
Housing loan instalment	1 500	
Car loan instalment	800	
Insurance premiums	600	
<b>Total monthly fixed expenses</b>		<b>2 900</b>
<b>Minus monthly variable expenses</b>		
Groceries	1 300	
Travel	375	
Home utilities	350	
Telephone bill	300	
Petrol expenses	700	
Gym	100	
<b>Total monthly variable expenses</b>		<b>3 125</b>
<b>Surplus of income</b>		<b>225</b>

Additional savings

$$\begin{aligned} \text{Total savings for 1 month} &= \text{Monthly savings} + \text{Additional savings} \\ &= \text{RM}650 + \text{RM}225 \\ &= \text{RM}875 \end{aligned}$$

$$\begin{aligned} \text{Total savings for 15 years} &= \text{RM}875 \times 12 \times 15 \text{ years} \\ &= \text{RM}157\,500 \end{aligned}$$

In fact, the amount of money saved is more than RM157 500 as the savings in banks offer interest annually.

The feasibility of Mr Wong's financial plan depends on following factors:

- 1 The inflation rates should not exceed pay rise.
- 2 The rental received is fixed.
- 3 Mr Wong is healthy and can continue to work.
- 4 The increase of expenses can be offset by pay rise, rentals and part-time jobs.
- 5 Nothing unexpected happens to Mr Wong's family that involves high costs.


**Self Practice 10.1b**

1. What are the factors that can influence a long-term financial plan?
2. The information below is Mrs Thong's financial plan.

Net Income	Financial Plan (RM)
Mrs Thong's salary	6 000
Expenses Budget	
House/apartment loan, including maintenance	500
Car instalment	700
Travel	500
Rental	1 500
Transport fares	900
Utility bills	250
Toll payments	100
Groceries	400
Allowances for parents	600
Savings	100
Insurance	200
Total expenses	5 750
<b>Mrs Thong's income balance</b>	250

- (a) Does Mrs Thong spend her money wisely?
- (b) Will Mrs Thong be able to achieve her long-term financial goal if she wishes to buy a property worth RM500 000 within 6 years with her current spending behaviour?


**Comprehensive Practice**

1. Why are more young people in Malaysia being declared bankruptcy nowadays?
2. What is the effect if the cash inflows are less than the cash outflows?
3. What is the purpose of creating a financial plan?
4. Give two advantages of reviewing and revising the progress of a financial plan.
5. Describe two factors that make a financial plan difficult to implement.
6. How should we review and revise the progress of a financial plan?
7. "The earlier we start saving, the better it is" to achieve our financial goals. Explain.



8. Encik Nabil works as an engineer in a factory with a monthly net salary of RM3 800. He is also a part-time sales agent of product X. The monthly commission earned is estimated to be RM450. The rental collected from the second house is RM600 per month. His estimated monthly expenses are shown below.

Monthly Expenses	RM
Housing loan instalment (1)	800
Housing loan instalment (2)	500
Food expenses	900
Utility payments	150
Toll and petrol expenses	200
Internet service subscription	100
Eat at a luxury restaurant	400
Insurance expenses	350

Encik Nabil sets aside 10% of his salary as fixed monthly savings in order to achieve his financial goals.

- You are required to create a monthly personal financial plan for Encik Nabil.
- Give comments on the surplus or deficit that will be experienced by Encik Nabil based on this financial plan.

9. What is the effect if there is



- a positive cash flow?
- a negative cash flow?

## PROJECT



The above illustration shows the financial goal of each of your family members. Help them by developing short-term and long-term financial plans based on the concept of SMART approach. You should get the information on the income and expenses of your family. In future, you may act as a financial consultant for your family.


**CONCEPT MAP**
**Financial Planning and Management**
**Financial Management Process**

Setting goals

Evaluating financial status

Creating a financial plan

Carrying out financial plan

Reviewing and revising the progress

**Personal Financial Plan**

Cash inflow

Cash outflow

Surplus/Deficit

Financial goals

Short-term

Long-term

Evaluating the feasibility of the financial plan

**SMART Concept**
*S* ⇔ Specific*M* ⇔ Measurable*A* ⇔ Attainable*R* ⇔ Realistic*T* ⇔ Time-bound

## Self Reflection

Complete the following with appropriate answers based on the statements provided.

The financial management process consists of:

- (a)
- (b)
- (c)
- (d)
- (e)

Financial goals based on SMART concept

- (a)
- (b)
- (c)
- (d)
- (e)

Features of a short-term personal financial plan

- (a)
- (b)
- (c)

Features of a long-term personal financial plan

- (a)
- (b)
- (c)
- (d)



## Mathematics Exploration

You have been invited to give a talk on 'SMART Financial Management' to teenagers in an educational institution.

## Instructions:

1. Divide the class into groups.
2. The speech should include the following content:
  - (a) The importance of financial management
  - (b) Ways to create a financial plan
  - (c) Short-term goals and long-term goals setting
  - (d) Examples of personal budgets for adults
3. Your group work can be presented in multimedia forms in the computer room. The speech text can also be displayed at the Mathematics Corner of your classroom.

